

What is claimed is:

5 1. A process for preparation of (R)-1,2-propanediol (which is characterized in) cultivating a microorganism belonging to genus *Pseudomonas* or genus *Alcaligenes* which has ability to assimilate (S)-1,2-propanediol as a single carbon source, and to grow in a culture medium containing a racemic 1,2-propanediol as a single carbon source, stereoselectively assimilating (S)-1,2-propanediol and then isolating the remaining (R)-1,2-propanediol from the culture broth.

10 2. The process according to claim 1 wherein the microorganism is *Pseudomonas* sp. DS-SI-5 (Deposit No.: FERM BP-7080).

15 3. The process according to claim 1 wherein the microorganism is *Pseudomonas nitroreducens* DS-S-RP8 (Deposit No.: FERM BP-7793).

4. The process according to claim 1 wherein the microorganism is *Alcaligenes* sp. DS-S-7G (Deposit No.: FERM BP-3098).

20 5. *Pseudomonas nitroreducens* DS-S-RP8 (Deposit No.: FERM BP-7793).

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